

WHAT IS CLAIMED IS:

1. An image processing apparatus for generating image data by processing document data described in a predetermined structured description language,
5 comprising:

analysis means for analyzing said document data and recognizing font size information which is information on the font size contained in said document data;

10 instruction input means for entering a standard font size at the output of an image indicated by said document data by allotment to a physical page; and

drawing means for executing a drawing process in such a manner that a character or a character train
15 recognized by said analysis means is outputted with a font size entered by said instruction input means.

2. An apparatus according to claim 1, wherein:
said analysis means calculates a magnification
20 change rate utilizing the font size information contained in said document data, and information indicating the standard font size entered by said instruction input means; and

said drawing means executes a drawing process by
25 changing the magnification of a character or a character train, to which said font size information is applied, by said magnification change rate so as to

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achieve output with said standard font size.

3. An apparatus according to claim 1, wherein:

5 said document data include information for
designating a font size to a specified character
recognized by said analysis means; and

10 said drawing means executes drawing in such a
manner that a character or a character train, to which
said specified font size is applied, is outputted with
the standard font size entered by said instruction
input means regardless of the information instructing
the font size.

4. An apparatus according to claim 1, wherein:

15 said document data are capable of designating the
standard size font in said document data;

said analysis means calculates the magnification
change rate utilizing a base font size and the standard
font size entered by said instruction input means; and

20 said drawing process is executed by applying said
magnification change rate to the entire character
information contained in said document data in such a
manner that a character or a character train, to which
said base font size is applied, is outputted with the
25 standard font size entered by said instruction input
means.

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5. An apparatus according to claim 1, wherein:

said analysis means recognizes a most frequent font size in said document information; and

said drawing means executes a drawing process in
5 such a manner that a character or a character train, to which said most frequent font size recognized by said analysis means is applied, is outputted with the standard font size entered by said instruction input means.

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6. An apparatus according to claim 1, wherein:

said analysis means recognizes a minimum font size in said document data; and

said drawing means executes a drawing process in
15 such a manner that character information in layout on the physical page is outputted with a font size at least equal to the standard font size entered by said instruction input means.

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7. An apparatus according to claim 1, wherein:

said document data includes at least an object data and character information;

said analysis means detects the size of an image represented by said object data; and

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said drawing means executes a drawing process in such a manner that an object held by an image or a table represented by said object data can be

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accommodated in a physical page and that a character or
a character train indicated by said character
information contained in said document data is
outputted with a standard font size entered by said
5 instruction input means.

8. An apparatus according to claim 1, wherein:
said document data includes at least an object
data and character information;
10 said analysis means detects the size of an image
represented by said object data; and
said drawing means executes a drawing process in
such a manner that the image represented by said object
data is subjected to a magnification change according
15 to the width of a physical page and that a character or
a character train indicated by said character
information contained in said document data is
outputted with a standard font size entered by said
instruction input means.

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9. An apparatus according to claim 1, wherein
said apparatus communicates with an arbitrary server
apparatus for receiving and processing said document
data.

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10. An apparatus according to claim 1, further
comprising selection means for selecting a layout

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method according to the instruction of the user,
wherein the calculation method for said magnification
change rate is determined according to the result of
selection by said selection means.

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11. An apparatus according to claim 1, further
comprising a printing unit for outputting image data
generated by said drawing means.

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12. An apparatus according to claim 1, wherein
said apparatus is a printer.

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13. An image processing method for generating
image data by processing document data described in a
predetermined structured description language,
comprising:

an analysis step of analyzing said document data
and recognizing character information contained in said
document data;

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an instruction input step of entering a standard
font size at the output of an image indicated by said
document data by allotment to a physical page; and

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a drawing step of executing a drawing process in
such a manner that a character or a character train
recognized by said analysis step is outputted with a
font size entered by said instruction input step.

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14. A method according to claim 13, wherein:

5 said analysis step calculates a magnification
change rate utilizing the font size information
indicated by specified character information contained
in said document data, and the standard font size
entered by said instruction input step; and

10 said drawing step executes a drawing process in
such a manner that a character or a character train,
indicated by said specified character information is
outputted with a font size changed with said
magnification change rate.

15. A method according to claim 13, wherein:

15 said document data include information for
designating a font size to a specified character
recognized by said analysis step; and

20 said drawing step executes a drawing process in
such a manner that a character or a character train, to
which said specified font size is applied, is outputted
with the standard font size entered by said instruction
input step regardless of the information instructing
the font size.

16. A method according to claim 13, wherein:

25 said document data are capable of designating the
standard size font in said document data;

 said analysis step calculates the magnification

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change rate utilizing a base font size and the standard font size entered by said instruction input step; and

said drawing step is executed by applying said magnification change rate to the entire character

5 information contained in said document data in such a manner that a character or a character train, to which said base font size is applied, is outputted with the standard font size entered by said instruction input step.

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17. A method according to claim 13, wherein:

said analysis step recognizes a minimum font size in said document data; and

15 said drawing step executes a drawing process in such a manner that character information in layout on the physical page is outputted with a font size at least equal to the standard font size entered by said instruction input step.

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18. A method according to claim 13, wherein:

said document data includes at least an object data and character information;

said analysis step detects the size of an image represented by said object data; and

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said drawing step executes a drawing process in such a manner that an object held by an image or a table represented by said object data can be

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accommodated in a physical page and that a character or
a character train indicated by said character
information contained in said document data is
outputted with a standard font size entered by said
5 instruction input step.

19. A method according to claim 13, wherein:
said document data includes at least an object
data and character information;
10 said analysis step detects the size of an image
represented by said object data; and
said drawing step executes a drawing process in
such a manner that the image represented by said object
data is subjected to a magnification change according
15 to the width of a physical page and that a character or
a character train indicated by said character
information contained in said document data is
outputted with a standard font size entered by said
instruction input step.

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20. A method according to claim 13, further
comprising an acquisition step of communicating with an
arbitrary server apparatus for receiving and processing
said document data.

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21. A method according to claim 13, further
comprising a selection step of selecting a layout

method according to the instruction of the user,
wherein the calculation method for said magnification
change rate is determined according to the result of
selection by said selection step.

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22. A method according to claim 13, further
comprising a printing step of outputting image data
generated by said drawing step.

10 23. A method according to claim 13, wherein said
method is used in a printer.

24. A computer readable memory medium storing a
program for causing a computer to execute an image
15 processing method for generating image data by
processing document data described in a predetermined
structured description language, the method comprising:

an analysis step of analyzing said document data
and recognizing character information contained in said
20 document data;

an instruction input step of entering a standard
font size at the output of an image indicated by said
document data by allotment to a physical page; and

a drawing step of executing a drawing process in
25 such a manner that a character or a character train
recognized by said analysis step is outputted with a
font size entered by said instruction input step.

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the drawing by said drawing means.

28. An apparatus according to claim 25, wherein
said print set information designates a sheet size for
5 printing the image drawn by said drawing means.

29. An apparatus according to claim 25, wherein
said information to be referred to at the printing
indicates whether or not to execute stapling.
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30. A server apparatus for controlling the
transmission of document information described by a
predetermined structured description language by
communicating with an arbitrary image processing
15 apparatus, comprising:

storage means for storing document information
described by a predetermined structured description
language;

acquisition means for acquiring a resource
20 required for logic layout;

detection means for analyzing a reference print
instruction acquired from any image processing
apparatus and detecting print set information;

format process means for allotting the document
25 information searched from said storage means to a
physical page based on the print set information
detected by said detection means and the resource

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acquired by said acquisition means; and

transmission means for transmitting the document
information, subjected to layout by said format process
means, to any image processing apparatus requesting the
5 reference print instruction.

31. A server apparatus according to claim 30,
wherein said format process means executes layout by
scaling each character in the document information to a
10 base character size for allotment to the physical page,
based on a font size designated in said print set
information and a standard font size designated by said
resource.

32. An image processing method for processing
document information described by a predetermined
structured description language and executing a drawing
process by communicating with an arbitrary server
15 apparatus, the method comprising:

20 an instruction input step of entering print set
information to be referred to in allotting an image
indicated by said document information to a physical
page or executing a printing process;

a transmission step of transmitting a reference
25 print instruction including the print set information
entered by said instruction input step to a designated
server apparatus;

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an acquisition step of acquiring, from said server apparatus, document data which are acquired from an acquisition source indicated by the reference print instruction and processed by said server apparatus; and

5 a drawing step of drawing an image indicated by the document data acquired by said acquisition step from said server apparatus.

33. A method according to claim 32, wherein said

10 print set information designates a standard font size in the layout of said document data to the physical page.

34. A method according to claim 32, wherein said

15 print set information designates the resolution in the drawing by said drawing step.

35. A method according to claim 32, wherein said

20 print set information designates a sheet size for printing the image drawn by said drawing step.

36. A method according to claim 35, further comprising a search step of searching the source of acquisition of the document data described by said

25 predetermined structured description language.

37. An image processing method in a server

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apparatus provided with storage means for storing document information described by a predetermined structured description language and adapted for controlling the transmission of document information described by a predetermined structured description language by communicating with an arbitrary image processing apparatus, the method comprising:

- an acquisition step of acquiring a resource required for logic layout;
- 10 a detection step of analyzing a reference print instruction acquired from any image processing apparatus and detecting print set information;
- a format process step of allotting the document information searched from said storage means to a
- 15 physical page based on the print set information detected by said detection step and the resource acquired by said acquisition step; and
- a transmission step of transmitting the document information, subjected to layout by said format process
- 20 step, to any image processing apparatus requesting the reference print instruction.

38. An image processing method according to claim 19, wherein said format process step executes layout by

25 scaling each character in the document information to a base character size for allotment to the physical page, based on a font size designated in said print set

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information and a standard font size designated by said resource.

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39. A computer readable memory medium storing a
5 program for causing a computer to execute an image
processing method for processing document information
described by a predetermined structured description
language and executing a drawing process by
communicating with an arbitrary server apparatus, the
10 method comprising:

an instruction input step of entering print set
information to be referred to in allotting an image
indicated by said document information to a physical
page or executing a printing process;

15 a transmission step of transmitting a reference
print instruction including the print set information
entered by said instruction input step to a designated
server apparatus;

an acquisition step of acquiring, from said server
20 apparatus, document data which are acquired from an
acquisition source indicated by the reference print
instruction and processed by said server apparatus; and

a drawing step of drawing an image indicated by
the document data acquired by said acquisition step
25 from said server apparatus.

40. A computer readable memory medium storing a

program for causing a computer to execute an image processing method in a server apparatus provided with storage means for storing document information described by a predetermined structured description language and adapted for controlling the transmission of document information described by a predetermined structured description language by communicating with an arbitrary image processing apparatus, the method comprising:

10 an acquisition step of acquiring a resource required for logic layout;

 a detection step of analyzing a reference print instruction acquired from any image processing apparatus and detecting print set information;

15 a format process step of allotting the document information searched from said storage means to a physical page based on the print set information detected by said detection step and the resource acquired by said acquisition step; and

20 a transmission step of transmitting the document information, subjected to layout by said format process step, to any image processing apparatus requesting the reference print instruction.

25 41. An image processing apparatus for generating image data by processing document data described by a predetermined structured description language,

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comprising:

analysis means for analyzing said document data and recognizing character information contained in said document data; and

5 drawing means for executing a drawing process in such a manner that a character or a character train indicated by the character information recognized by said analysis means is outputted with a predetermined font size regardless of information for designating a
10 font size, set for said character information in said structured document.

42. An apparatus according to claim 41, wherein:
said predetermined font size is entered by
15 instruction input means of the image processing apparatus;

said analysis means calculates a magnification change rate based on the font size of a specified character or a specified character train and a
20 predetermined font size; and

said drawing means executes a drawing process by changing the magnification of said specified character with said magnification change rate, in such a manner that said specified character or character train is
25 outputted with said predetermined font size, regardless of information information for designating the font size, set for said character information in said

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structured document.

43. An apparatus according to claim 41, wherein:
said document data include at least an object;
5 said specified character or character train is
outputted with said predetermined size; and
an image indicated by the object included in said
document data is subjected to a change in the
magnification according to the sheet size for
10 outputting said object.

44. An apparatus according to claim 41, wherein
the information designating said font size and set for
said character in said structured document is described
15 by tag information designating the font size in HTML or
XML.

45. An image processing method for generating
image data by processing document data described by a
20 predetermined structured description language,
comprising:
an analysis step of analyzing said document data
and recognizing character information contained in said
document data; and
25 a drawing step of executing a drawing process in
such a manner that a character or a character train
indicated by the character information recognized by

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said analysis step is outputted with a predetermined font size regardless of information for designating a font size, set for said character information in said structured document.